

# BEC EnviroSeries Conference



## May 2023

BEC's flagship event, BEC EnviroSeries Conference “**Accelerating Net-zero Action through Carbon Pricing, Digitalisation and Closing the Resource Loop**” was held on 25 May 2023. Aiming to bring audience to the latest development of several **decarbonisation areas with specific relevance** to Hong Kong, the Conference touched on topics of carbon pricing, building digitalisation, opportunities of electric vehicle batteries recycling and single-use plastic. BEC believes that this cross-sector forum has fostered the discussion on key issues related to Hong Kong environmental sustainability and it is our pleasure to share with you the key highlights and takeaways of the Conference.



We would like to share with you the highlights and the key takeaway of each session:

## Session 1: Carbon Market and Internal Carbon Pricing

The recent EnviroSeries Conference brought together industry leaders to share their insights on the potential of carbon markets and internal carbon pricing in accelerating net-zero action. The session begins with the keynote presentation from Mr Jinbai Zhang of Towngas Smart Energy Company Limited discussing the evolving global carbon emission trading market, emphasising key factors such as setting annual reduction rate of emission trading system, auction system, legislative process speed-up, and liquidity enhancement. He also shared the Towngas' Smart Energy Climate Neutrality Roadmap, which focuses on Calculation, Engaging with upstream partners, Reducing emissions through various approaches, and Offsetting unavoidable carbon emissions ("CERO").

Ms Lydia Sheldrake of the Voluntary Carbon Markets Integrity ("VCMI") Initiative introduced the VCMI initiative in another keynote presentation, which focuses on developing best practices for the demand side of the voluntary carbon market and supporting policy makers in establishing carbon markets. Lydia emphasised that high-quality carbon credits can play a role in a net-zero transition, building resilience and demonstrating corporate ambition in addressing climate change. VCMI is now developing a provisional code of practices to ensure transparency and trust in what high-quality carbon credits look like. There are four steps to make a VCMI claim: demonstrating corporate governance on climate, identifying the claims that need support from VCMI, purchasing high-quality carbon credits, and reporting transparency on the three steps.

The panel discussion then started with the sharing from Mr Hendrik Rosenthal of CLP. Hendrik shared the difference between carbon credits and renewable energy certificates ("RECs"). He reminded the audience



that environmental attributes can only be sold once – “*you cannot sell the same electron twice.*” Mark Harper from Swire Group discussed the use of carbon credits to offset the group’s aviation-related emissions and shared the importance of aligning any offsetting strategy with the Science Based Targets initiative (“SBTi”) and ensuring transparency to avoid reputational risks.

Mr Raymond Fong from Asia Carbon Institute (“ACI”) shared how the newly established institute would support carbon trading at international standards, emphasising the need for quality baseline setup. Hendrik, speaking with the hat of International Emissions Trading Association (“IETA”), added on the needs for establishing standards that cater to projects, buildings, and transportation in Hong Kong.

Ms Lucita Ng from Bloomberg added the importance of involving finance in carbon markets and mentioned that several carbon credit related events have been arranged in APAC to engage with the major market players regionally. Lucita further elaborated that if carbon credit developed properly, the market would facilitate companies to seize the opportunity related to green finance.



The panel discussion further delved into issues related to carbon leakage and Carbon Border Adjustment Mechanism (“CBAM”). Jinbai elaborated on the concept of carbon leakage and the difference between CBAM and carbon tax, sharing the reality behind the need for CBAM where many companies moved out of Europe but still have their products exported back to Europe, avoiding paying their carbon price. The CBAM is established to address this issue.

Mark continued to share the cases of HAECO and Swire Coca Cola where large amount of their emissions are from scope 1 and scope 2 emissions. Carbon pricing helps identify the risk of the carbon level, driving decarbonisation efforts, and directing investment. Carbon pricing can be viewed as an internal carbon tax, factoring in emissions at business planning and capturing potential emissions within departments. Investment thresholds are decided by the sustainability investment committee, and departments are directed to factor in the carbon price while making business decisions. Jinbai added that the market needs carbon pricing and participants. Rooftop solar farms and wind farms are more common nowadays, and their potential would further enhance the market for both compliance and carbon market, which would coexist.

Raymond shared the critical factors to be considered for preparing carbon markets, such as trade practice,

baseline development, and calculation of carbon reduced for fulfilling the needs of due diligence, standardisation, and project transparency. ACI is working on a 3-step approach to keep within the voluntary market, find common practices, and identify barriers for projects.

The panel discussion ended with all panellists agreeing on the need to incentivise private markets to adopt carbon credits for business, as carbon credits are interlinked between different companies. Lucita added that the technology of blockchain in fact would be incorporated, while Raymond commented that it would be great if the market would be further transformed into a stock-market-like market.

Overall, the Conference provided valuable insights into the potential of carbon markets and internal carbon pricing in accelerating net-zero action. The speakers emphasised the importance of high-quality carbon credits, baseline development, and transparency to ensure trust in the market.

**Key takeaway:**

Carbon market and internal carbon pricing would help corporate in addressing carbon emissions by factoring in the “price” of their emission and allowing them to trade and acquire green attribute. Allowing carbon emission to be traded within a proper market with standard, the market and pricing could play a crucial role in addressing climate change.



[Watch the Session 1 Playback](#)

## Session 2: Building Energy Efficiency through Digitalisation

In Session 2, government official, private sectors and financial institute gathered to explore digital transformation in building energy efficiency. The session commenced with three captivating keynote presentations. Mr Travis Kan, representing Schneider Electric, shed light on the powerful partnership between digitalisation and sustainability in his presentation titled “*Partnership for Accelerating Building Energy Efficiency.*” He emphasised inefficiencies in the local building cycle and showcased how digital solutions significantly enhance building efficiency and foster companies’ decarbonisation. He also highlighted the untapped potential of data in stimulating optimisation in achieving substantial emission reductions.

Following Travis, Mr K.O. Wong from CLP Power shared his insights on “*Acceleration to Net Zero through Digitalisation.*” He outlined CLP’s decarbonisation roadmap and unveiled various measures and services designed to improve building efficiency, such as energy audits, smart meters, and energy consumption profile analysis. The introduction of the Smart Energy Online (“SEO”) platform allows businesses to access their energy consumption data conveniently, providing valuable insights for operational improvements.

Concluding the keynote presentations, Mr Don Tse from Hongkong Land delivered a thought-provoking presentation on “*Unlocking the Potential of Existing Buildings: How Digitalisation can Drive Net Zero*”. He emphasised digitalisation goes beyond being paperless and introduced the Digitalisation Roadmap as a valuable tool for enterprises seeking a step-by-step approach to digital transformation. It encompasses crucial steps from data collection and monitoring to automation and decision-making, enabling developers to unleash the full potential of their buildings.

The session then transitioned to panel discussions. Mr Wallace Leung, building services engineer from Electrical and Mechanical Services Department discussed the Government's ongoing efforts to facilitate advanced technologies in their facilities and emphasised the challenges faced due to the age of buildings. Retrofitting and energy optimisation are essential in preparing these buildings for digitalisation, while the utilisation of Artificial Intelligence and Building Information Modelling further enhances energy-saving initiatives.



Financial institutions play a vital role in enabling companies undergo upgrades and transformations. Ms Carmen Tsang from Crédit Agricole CIB highlighted the significance of green buildings in green banks and green bond markets. Sustainable finance has become mainstream and banking sectors recognise the importance of investments that support environmental sustainability. Developing a unified framework aligned with international standards is also crucial for differentiating eligible activities and attracting responsible investors.

Returning to digitalisation in private sector, Mr Travis Kan reiterated its growing importance as a customer need and global trend. It is important to connect closely with clients, understanding requirements and collaborating with consultants to develop customised applications. Addressing concerns about energy depletion, Travis emphasised their solutions are designed for low energy consumption, maximising effectiveness while minimising carbon footprint.

Mr K.O. Wong echoed this sentiment, highlighting their engagement with various associations, chambers, clients, and consultants. Collaboration is key to unlocking the potential of advanced technology, and CLP actively supports counterparts by providing energy audit services and educational resources.

Mr Don Tse emphasised the time has come for Hong Kong enterprises to embrace digitalisation and reap the benefits. While challenges exist for corporations and small and medium enterprises (“SMEs”), it is about taking the first step, conducting trials and pilot projects, and establishing a solid foundation. He confidently stated the technology is ready and encouraged companies to seek solutions from various providers and engage continuously with stakeholders. To support the growth of future world-class cities in innovation and technology, the Hong Kong PropTech Alliance has been established to provide opportunities to identify innovative digital solutions that promote real estate technology development.

The insights gained from panellists have proven invaluable. Their journeys and efforts in adopting digitalisation across sectors have showcased the immense potential of digital solutions in driving decarbonisation. Collaboration is crucial in accelerating these efforts towards a more sustainable future.

**Key takeaway:**

The session highlighted the power of digital solutions in driving building energy efficiency by emphasising the interconnection between digitalisation and sustainability and the importance of collaboration including government, financial institutions, and private sectors. By harnessing the power of digital technologies, we can unlock the full potential of decarbonisation and pave the way for a greener and more prosperous world.

 [Watch the Session 2 Playback](#)

### Session 3: Circular Ecosystem and Opportunities of Electric Vehicle Batteries

During the first keynote presentation on the EU Green Deal, Mr Walter van Hattum as Head of Trade of the European Union provided an overview of the legislation background for electric vehicle (“EV”) batteries in the European Union. He emphasised that for the first time ever, circular economy principles are embedded in the legislation to ensure that all products in the EU are as green as possible. With transportation accounting for 25% of carbon emissions, the EU's Circular Action Plan aims to prioritise responsible design and end-of-life consequences to reduce carbon emissions by up to 39% and minimise the impact on biodiversity by up to 90%.



Walter noted that the battery market is set to witness 40 times growth potential, which means that mining activity and recycling efforts will significantly increase. The new regulation looks at the whole lifecycle of the battery, with a focus on ensuring circularity and safety, establishing primary and secondary markets, providing legal certainty, and improving labour conditions. The objective is to ensure that batteries are mostly recycled, meet environmental and responsibility conditions, and effectively managed at the end of life.

The EU is phasing out normally charged batteries and working to prevent losses of EV and industrial batteries. The aim is to increase collection, recycling efficiencies, and material recovery to reduce the lifetime carbon footprint of batteries, whether they are first-time batteries or repurposed ones. Furthermore, a digital battery passport will be implemented by 2027 to capture all relevant information. The EU hopes to build a stronger recycling industry and increase recycling material within the battery manufacturing to meet growing demands and contain environmental impacts.

Mr Anthony Yan from China Everbright Green Technology Innovation Research Institute provided insights into the battery recycling market in mainland China and lessons that could be applied to Hong Kong. The battery recycling industry in China will witness a significant growth in the next decade. Major regulatory and standard updates by the Ministry of Industry and Information Technology of PRC and the National Energy Administrations have been implemented, which supports the formation of the market.

Currently, two primary methods of recycling batteries have been developed, including cascaded utilisation and dismantling. Mainland battery recycling companies typically use the wet chemistry method due to its low costs and high efficiency, while the pyrogenic process has high costs and requires waste gas treatment.



Anthony also discussed the challenges of building a battery recycling network in Hong Kong. Several points are worth noting, including the establishment of a collection network, the technology route, the suitable locations for recycling facility etc. Hong Kong could potentially refer from mainland China's experiences to develop a sustainable and efficient battery recycling industry.

Following the keynote presentations was the panel discussion, joined by Mr Merlin Lao from BEC, Mr David Lai from Environmental Protection Department, Ir Prof Daniel Cheng from Dunwell Group, and Mr Raymond Cheung from JC Motor Limited.



The panel touched on the impact with more electric vehicles (“EVs”) gathering pace in Hong Kong and on the management of retired EV batteries, which are classified as chemical waste. The panellists noted the need for a Product Responsibility Scheme for EV batteries to ensure proper disposal and management of the waste.

The panellists also discussed the potential for repurposing retired EV batteries as energy storage, rather than recycling them to lithium battery black mass. However, repurposing would require sophisticated testing programmes to sort the batteries and ensure their safety and efficiency.

The panellists also emphasised the importance of responsible collection and handling of retired EV batteries by the car manufacturers and suppliers. The costing mechanism of proper handling and recycling of retired EV batteries should be studied to reduce business impacts to stakeholders.



Lastly, the panellists discussed the need for capacity building programmes to enhance workers competence to maintain and repurpose EV batteries. New legislation is also needed to drive repurposing, e.g. allowing retired EV batteries to be shipped to mainland China for recycling.

**Key takeaway:**

The circular ecosystem for EV batteries will require not only technology innovations but also regulatory and business innovations. The best practices in different jurisdictions share much more commonalities than differences. Although challenges are ahead, proper collection, recycling and repurposing retired EV batteries would open lots of opportunities. It is indeed high time to consider the planning of ecosystem with lifecycle of EV batteries being considered.



[Watch the Session 3 Playback](#)

#### **Session 4: Business Preparation towards Regulation of Single-use Plastics**

Mr Kenneth Cheng, Assistant Director of Environmental Protection at the Environmental Protection Department, shared the latest proposal for regulating disposable plastic tableware and other single-use plastic products. During his keynote presentation, Mr Kenneth Cheng discussed the environmental problems caused by microplastics and waste plastics. He then provided a detailed definition of disposable plastic tableware under the proposed regulation, as well as a timeline for its implementation.

Kenneth also introduced the Green Tableware Platform, an online information platform that supports and encourages the adoption of green tableware. This platform provides information on almost 130 non-plastic alternative products, with more products to be added in the future. It allows the public and food and beverage (“F&B”) companies to better understand the alternative options available in the market.

Additionally, Kenneth shared a cost comparison between plastic tableware and alternatives. The price of alternative items proposed to be regulated in the first phase, including straws, stirrers, cutlery, and plates, are competitive with price differences of less than HK\$0.1. There are also more than 40 local or mainland tableware suppliers for alternative tableware. To conclude, Kenneth assured the business sector not to worry about the availability and affordability of alternative products.

Mr Patrick Ho, Deputy Head of Sustainable Development at Swire Properties Limited, shared the company's strategy on circularity and reducing single-use plastic. During his presentation, Patrick provided examples of how proposed regulations can affect various businesses, such as restaurants, bars, hotels, malls, and offices. He also elaborated on how Swire Properties can help its tenants from a landlord's perspective.

For instance, Swire Properties has partnered with Muuse and introduced the Muuse Smart Cup pilot programme in 2020. This is Hong Kong's first smart reusable cup network, with 13 café partners in Taikoo Place. The programme has already reduced nearly 20,000 single-use coffee cups, and the return rate of smart cups is 99.5%. The programme will be expanded to cover other food containers in the future. Mr Ho believes tenants are supportive and will adopt the programme in their events. Patrick also emphasised the importance of cross-sector collaboration and partnership to drive positive sustainability impact.



During the panel discussion, Mr George Chen, Co-founder and CEO at Econinno HK Limited, shared innovative alternatives to traditional tableware with the audience. He emphasised the following points:

- There are green composite materials available that do not contain any additives, lining, or plastic.
- Technology plays an essential role in developing alternative tableware.
- The market offers affordable alternatives to traditional tableware that utilise green composite materials.

Ms Sabrina Lerskiatiphanich, CSR & Sustainability Executive at Foodpanda Hong Kong, shared information about Foodpanda's sustainable packaging programme. In 2020, Foodpanda began selling low-cost, plant-based food packaging to restaurant partners as part of its sustainable packaging programme. However, many of these packaging items are still being sent to landfills, as Hong Kong lacks composting facilities.

To address this issue, Foodpanda launched a reusable packaging pilot programme in October 2022. This programme allows customers to rent reusable food containers when ordering food from restaurant partners on Hong Kong Island. On the challenge side, the programme is difficult to expand due to storage concerns, as reusable containers cannot be stacked as easily as single-use packaging. Additionally, the F&B industry is traditionally minded and some consider offering reusable containers could be disruptive to their operations.

Patrick mentioned that logistics is one of the challenges in promoting reusable food containers. The cost of collecting, cleaning, and returning cups to café partners is much higher than the cost of the cup itself. He



also suggested that it is important to have a diverse strategy for addressing waste. Switching materials is one possible solution, but the reuse system should be incentivised in the local business community.

Kenneth stressed that the Green Tableware Platform can assist SMEs in shifting to alternative tableware. He also expressed appreciation for the first movers in introducing green tableware trends. It is important for the wider business sector to support SMEs in adopting alternative tableware together.

**Key takeaway:**

The Government has proposed regulations to regulate disposable plastic tableware and other single-use plastic products. The Green Tableware Platform also provides information on non-plastic alternative products. There are various programmes in Hong Kong to promote green tableware (alternative and reusable options). However, limitations such as logistics and storage need to be addressed to further promote the use of reusable alternatives. Cross-sector collaboration and partnerships are also essential to drive positive sustainability impact and reduce the use of single-use tableware.



[Watch the Session 4 Playback](#)

**About Business Environment Council Limited 商界環保協會有限公司**

Business Environment Council Limited (“BEC”) is an independent, charitable membership organisation, established by the business sector in Hong Kong. Since its establishment in 1992, BEC has been at the forefront of promoting environmental excellence by advocating the uptake of clean technologies and practices which reduce waste, conserve resources, prevent pollution and improve corporate environmental and social responsibility. BEC offers sustainable solutions and professional services covering advisory, research, assessment, training and award programs for government, business and the community, thus enabling environmental protection and contributing to the transition to a net-zero economy.

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